

Front cover

Laying woodblocks in Sturt Street, South Melbourne, 13 May 1925. Photograph courtesy State Library Victoria.

In this issue

With over 130 years of tramway history Melbourne has so many fascinating tales of our city and its relationship with urban transport.

In Part 1 of a classic tale of Melbourne land speculation boom and bust in the 1890s, Duncan MacAuslan examines the first of the four operators of the Caulfield horse tramway. The second instalment of this story will be appearing in the next issue of *The Bellcord*.

For around sixty years woodblocks were the paving material of choice for our tramways, with the last major section of woodblocked tram track finally being removed in 2010. Russell Jones discusses the history of woodblock paving and its use in Melbourne tramways.

While the most prominent structure on the south side of Wallen Road is the Hawthorn tram depot, the remainder of the block has seen a variety of different uses over the years. Alan Scott explores the history of the site – from the permanent way yard to the popular Hawthorn Tea Gardens.

We delve into the museum's extensive photographic collection and find a great image of Elizabeth Street in the 1930s, just prior to its conversion from cable to electric trams.

And finally, Warren Doubleday tells the story of Richard "Dick" Nicolson – the creator of a superb collection of model trams now on display at the Melbourne Tram Museum.

Enjoy reading!

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The Bellcord is published by the Melbourne Tram Museum Inc, A0048167Z, ABN 11 293 508 607.

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Museum news

After being closed for most of the past two years, we are absolutely delighted that the museum is open again for visitors. We are back to our usual schedule – open days on the second and fourth Saturdays each month. Mid-week open days are planned to be re-introduced soon, starting in the next school holidays. Dates will be announced on our website and social media.

We were fascinated by the remarkable skills of model makers recreating intriguing historical events in the TV series *Tiny Oz*. But our favourite part of the programme was the museum, and one of our popular guides, Kevin Tierney, featuring in Episode 1. If you haven't seen *Tiny Oz* yet, you can still catch it – and Kevin – on ABC iView.

With loads of tasks and projects planned at the museum, we are in need of willing hands. Many thanks to our members who responded to our recent call for volunteers. If you would like to become an active participant at the museum, we would be very happy to hear from you! Contact us at info@trammuseum.org.au.

Visitor feedback has long confirmed that our volunteer guides are a highlight of the museum visitor experience. With plans for more frequent open days, we are keen to expand our pool of volunteer guides. So we recently conducted an orientation session for a group of new guides, covering an introduction to the museum, safety procedures and helpful strategies for interacting with visitors. Welcome to our team!

And congratulations to the Yarra Trams team that recently competed in the European Tram Drivers Championship in Leipzig, Germany. It was the first time since the inaugural championship in 2012 that a team from outside Europe had been invited to participate. After a series of safety and precision driving challenges, our home team finished tenth in a very competitive field of 25. Aussie, Aussie, Aussie!



Presenters JoAnne Bouzianis-Sellick and Jimmy Rees from the TV series Tiny Oz. Image courtesy of Northern Pictures.

The beginning of the Caulfield horse tramway

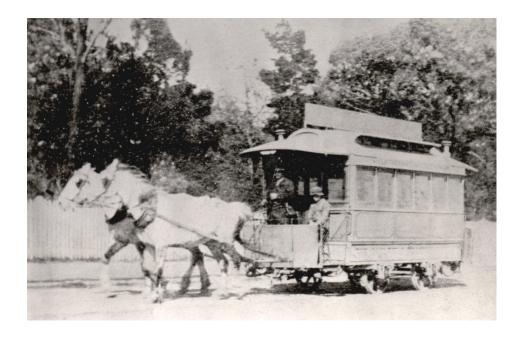
Background

The Caulfield horse tramway, like the Fairfield, Coburg and Box Hill tramways, was a product of Melbourne's 1880s land boom. Its anticipated profitability was based on expected revenue from passengers who would flock to the new housing estates being developed by the land promoters. Such estates would become accessible through the tramways. Many of the promoters were 'land boomers' and several appear in the numerous bankruptcy proceedings of the 1890s.

The line's two periods of operation, from January 1889 until October 1897 and from October 1901 until August 1902, spanned just under one-third of the thirty-year lease. During that period, four companies ran the trams and were subject of several court cases.

The Caulfield Tramway Company

On Thursday 24 November 1887 a deputation asked the Caulfield Shire Council to obtain power to construct tramways in the shire. Under the Local Government Act councils needed permission from the Governor in Council to be able to construct tramways. The council could then delegate that authority to a company.



Allegedly the first Caulfield Tramway Company horse tram in 1889, driven by Edward Rowney (1857-1929). Described as an accomplished horseman, Rowney drove horse trams in Ballarat before moving to Caulfield in 1888. The only photographs of the CTC's trams show them being hauled by two horses. Photograph from the Russell Nowell collection.



James MacDougall (1844-1909), managing director of Sands & McDougall Ltd, co-founder of Australian Paper Mills Ltd and chair of the Caulfield Tramway Company.

The delegation had previously addressed the Shire's Works Committee and spent some time developing plans including:

- main line from Elsternwick along Glen Huntly, Kooyong, Glen Eira and Kambrook Roads to Caulfield Station
- branch line along Glen Huntly Road to Glen Huntly station
- gauge 4ft 8½ ins (1435mm)
- maximum fare 3d
- option to extend west on Glen Eira Road to the Sandringham line crossing
- maximum speed 10 miles per hour (16 km per hour)
- operating rights for thirty years, after which the Council could acquire the line at a valuation, but not as a going concern.

Council unanimously agreed and applied for permission as reported in the Government Gazette on 2 February 1888.

The prospectus of the Caulfield Tramway Company (CTC) was published in several newspapers in December 1887. It claimed that a tramway would be a thoroughly sound investment – with the area to be developed for housing – and would likely yield increasing returns to the shareholders year by year. Capital was to be £25,000 in £1 shares but funding only reached half of that total. Payment was 1s 6d (1 shilling 6 pence) on application, 1s 6d on allotment and six 1s payments. Consulting engineers were Messrs Muntz and Bage. Thomas B. Muntz, also the shire's engineer, estimated the total construction cost to be about £11,000 which left only £1500 for operating.

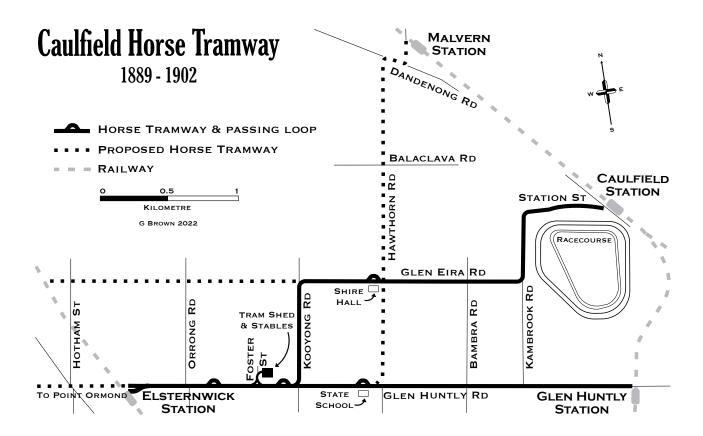
The enabling order was gazetted on 27 April 1888 and defined:

- three lines:
 - line 1 Elsternwick to Glen Huntly Station
 - line 2 Caulfield Station branch by Boundary, Glen Eira, Kambrook and Station Roads
 - line 3 Hotham Street by Glen Eira Road to Boundary Road (now Kooyong Road)
- completion dates lines 1 and 2 within two years from 24 April 1888, line 3 within three years
- stops wherever safe and convenient
- 3d flat fare.

The order required the Council to restore the streets to their 'condition previous to construction' if the Governor in Council determines these powers to be forfeited.

By 16 June 1888 10,000 shares were sold and 15,000 were available for the general public. The share list closed on 2 July 1888. A sub-committee was formed to report on the design and costings.

The CTC was registered on 21 June with an office at 31 Market Street. An Extraordinary General Meeting was called, at Caulfield Town Hall on 29 June, to receive the sub-committee's report and elect directors. The meeting elected James McDougall as chair, and E.P. Hastings was appointed company secretary.



Map of the Caulfield horse tramway routes, 1889-1902, drawn by Geoff Brown.

Muntz stated the company was ready to call for tenders, and MacDougall expected that the cars would be running by October 1889.

A clause in the delegating document was to the effect that if the Company neglected to run the tram on the line a certain number of times over a period of 28 days that section of the line would revert to Council.

Contracts were let in:

- 7 July 1888, for the supply of 10,000 sawn sleepers, closing on 19 July
- 21 July, for constructing the three tram lines using rails and sleepers provided by the council, closing 2 August
- 10 August, for eight tramcars and completing the permanent way by October 1889
- 31 August, constructing the tram shed and stables in Foster Street, closing
 6 September.

Council received Executive Council permission to delegate its construction authority to the CTC on 10 September 1888. This required the CTC to have its lines ready for use by October 1890.

Construction was underway by October 1888.

Eight six-window saloon one-horse cars were ordered from Duncan & Fraser, Adelaide, in July, costing £200 each. Built at Duncan & Fraser's works in Alfred Street, Prahran, pictures of the cars show 'turtle back' roofs with clerestory vents and an advertising panel. The first four were delivered in December but the CTC rejected the remaining four on the grounds that the first four required two horses to haul them.



Thomas Bingham Muntz (1835-1908), consulting engineer for the Caulfield Tramway Company. Also consulting engineer for the municipalities Caulfield, Flinders Boroondara, Malvern, councillor at Prahran over the period 1883-93 and mayor in 1885-6. He was a property speculator and a director of the Mercantile Bank which collapsed in 1892. Photograph of Muntz in his mayoral robes, courtesy of the Stonnington History Centre.

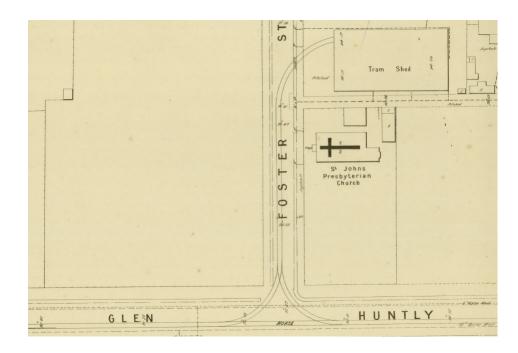
The rejection led to a court case in the Victorian Supreme Court on 8 October 1889. Duncan & Fraser's James Duncan sued the CTC for £750 damages for losses due to the rejection. He stated the order was for two-horse cars and that he had been instructed by the CTC to delay the delivery until the depot shed and lines had been completed. The CTC's defence solicitors, Hood and Fink, counterclaimed £500 for loss of profits caused by late delivery and the need for two horses. The jury awarded Duncan & Fraser £400 damages.

The tramway was single line with passing loops. At Elsternwick Station there was a siding on the south side of Glen Huntly Road. The MMBW plans of the area show the track layout and that the main line was offset to the south side of the centre of the road. The three loops in Glen Huntly Road cross to the north of the road's centre. A double junction led to the tram shed in Foster Street which had a single entrance road. The building would have been designed to hold at least eight cars and it is probable, although there is no evidence, that there were two or three roads inside with a traverser connecting them.

There was a loop outside Glen Huntly State School which was about half-way along the line but no further loops between there and Glen Huntly Station. The Caulfield line branched up Kooyong Road, off centre, tuning east into Glen Eira Road. There was a loop outside Caulfield Shire Hall. The line continued to Kambrook Road where it turned north around the Racecourse to Station Street and Caulfield station. Plans included a branch turning west into Glen Eira Road which was never constructed.

On 23 January 1889 local papers reported that the horse trams were operating between Elsternwick and Glen Huntly stations. The event was noted in the late news so possibly the line opened on 21 January. An opening ceremony, if held, does not appear to have been reported.

Despite expectations there was little housing development on Glen Eira Road and few passengers when this line opened, without fanfare, in March or April 1889. Trams ran to the Shire Hall with the section to Caulfield station operating only on race days.



Part of Melbourne & Metropolitan Board of Works plan no 1460 (1902), showing the CTC's depot in Foster Street. Map courtesy of State Library Victoria.

Addressed to the liquidators, Baringchambers, Market-street,
Will be received up to 3 o'clock the 15th day of
October, 1889.
For the
ASSETS of the CAULFIED TRAMWAY COMPANY
LIMITED (in liquidation).

29 YEARS' RIGHT of RUNNING
Over the Glen Huntly, Kooyong, Glen Eira,
Kambrook, and Station roads, Cauifield
About five miles permanent way
Land and buildings
Cars, brake, horses, barness, stable utensils, &c.

Printed forms of tender may be had and schedule
of assets seen at the above address or at the company's
stables.
The highest or any tender not necessarily accepted.

E. P. HASTINGS, Liquidator.

Advertisement for the sale of the CTC, Caulfield and Elsternwick Star, 2 August 1889.

Company failure

On 16 May 1889 CTC Directors asked Caulfield Shire Council to be relieved of operating the Caulfield Station branch. Daily revenue was around 16s a day whilst costs were nearly £16. The contract said that if the company neglected to run trams on a section of the line for 28 days that section would revert to the Council. The CTC only wanted to suspend services until 1890. The council's public works committee recommended that the CTC reduce their expenses by running fewer cars. This they did but to no avail.

At the CTC's AGM, held on 31 July, the balance sheet showed a loss of £1159 7s 6d. Penny fares had been introduced to promote patronage and the number of car trips reduced considerably.

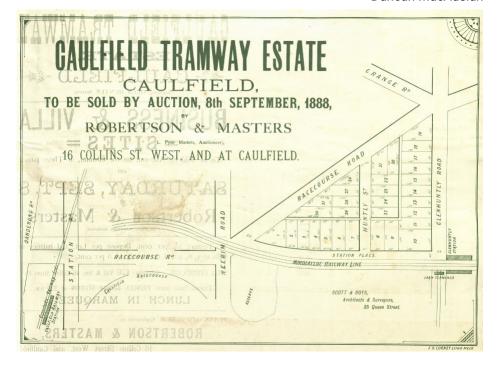
Despite optimism, an extraordinary general meeting on 4 September agreed to voluntarily wind up the CTC. The CTC's assets were offered for sale, including about 8km of track, land and buildings, trams, a brake, harness, and stable utensils, as well as the remaining 29 years of running rights. The tender's extended closing date was 11 November.

On 18 January 1890 the liquidator offered for sale 850 railway sleepers 1980mm by 200mm by 100mm (6ft 6in by 8in by 4in) – presumably those bought for the western part of Glen Eira Road.

On 15 December 1891 the liquidator reported income on hand £1006, calls collected £1321, tender for purchase £5694, interest £51, working receipts £124, total receipts £8199. Expenditure claims £7069, working expenses £168, dividends £733, liquidation costs £733. It was agreed to retain the company's books and documentation.

Despite the failure of the CTC there were others prepared to operate the line. This will be described, along with acknowlegements and references, in the next edition of *The Bellcord*.

Duncan MacAuslan



Advertisement for the Caulfield Tramway Estate, 1888. The horse tram terminus is shown by Glen Huntly station, near the bottom right-hand corner of the map. From the Dyer collection of auctioneers' plans, State Library Victoria.



Woodblocks in the foreground during the reconstruction of St Kilda Junction in the 1920s as part of the conversion from cable to electric trams. Photograph from the collection of the Melbourne Tram Museum.

One block at a time

At the rear of our tram shed at the museum, you may have noticed some of the floor is paved in woodblocks – specifically, red gum woodblocks.

In the late 1800s, woodblocks were a common material used in Europe for paving heavily trafficked city streets. They had significant advantages over granite setts and cobblestones, particularly in the era of horse-drawn transport.

Firstly, they provided a sound absorbent surface, quieting the clatter of horseshoes.

Secondly, woodblocks provided excellent grip for horses, even in wet weather. This was of vital importance, as countless horses slipped and fell on wet cobblestones, often breaking legs, leaving their owners no option other than to put them down. Loss of horses to accidents was a major expense for commercial haulage companies, who pressured authorities to find an answer – woodblock road surfaces.

Finally, they were cheap, and easily replaced, if somewhat labour-intensive to maintain.

Laid on a bed of sand on a well-drained base, with mastic, pitch or coal tar providing a form of mortar between them, woodblocks provided an excellent road surface, except for one problem.

When used for paving, softwoods from the northern hemisphere absorbed water, and even worse, horse urine, which stank to high heaven. Despite treatment with creosote and other rot-resistant chemicals available at the time, city authorities would be lucky to get five years' use out of softwood blocks before they had to be replaced.

The solution to this problem was supplied by Australian sawmillers in the 1870s – wooden blocks made from Western Australian jarrah and red gum from the Murray-Darling Basin. They were extremely rot-resistant, even in the wettest environments. These two timbers had already found favour as sleepers with railways all over the world. It was no stretch to start producing millions of woodblocks for export as paving material.

Blocks produced from these two species of hardwoods could last for up to five decades. There are still laneways in London paved with jarrah today, although streets in that city were last laid with woodblocks in the 1930s.

When the Victorian Parliament passed legislation authorising the construction of Melbourne's cable trams – The Melbourne Tramway and Omnibus Company Act 1883 – one of the conditions was that the company had to maintain the road surface between the tramway rails, as well as a strip of eighteen inches on the outside of the outermost rails. The surface had to be maintained at the same level as the rail surface, in a manner to the satisfaction of the local municipalities.

These provisions were based on the Tramways Act 1870, passed by the government of the United Kingdom to regulate the construction and operation of urban street tramways in Britain.

Making the decision to pave Melbourne's cable tram tracks with Australian hardwood blocks came down to simple economics, given there was already a vibrant export industry in existence.

The tracks were laid on a solid concrete foundation, providing an excellent base for the wooden blocks. To improve longevity, the blocks were laid so that the grain was vertical, ensuring that water did not accumulate in the grain. This practice restricted the growth of wood rotting fungi.



Neatly stacking wooden blocks was a key skill of Melbourne's tram track repair crew in 1953. Photograph from the collection of the Melbourne Tram Museum.

Toorak Road, Toorak in 1927, showing motorists driving on the woodblocked cable tram tracks in preference to the poorly maintained road surface. The reluctance of local municipalities to increase road maintenance spending on tram routes was a complaint of the M&MTB for decades. Photograph from the collection of the Melbourne Tram Museum.



The company maintained the integrity of the woodblock pavement on an annual basis, coating it with hot tar and casting sand over the surface to produce a non-slippery surface. It established a distillation plant in Flinders Street Extension to supply tar, using waste from the production of coal gas at the West Melbourne gas works as feedstock. Lighter oil fractions from the distillation plant were burnt in cable tram engine houses, reducing the company's coal bill.

Tarring made the woodblocks even more rot-resistant.

Using woodblocks as a paving material was not without its problems. In the efforts to put out the Great Melbourne Fire of 1897 – which destroyed several buildings facing Elizabeth Street and Flinders Lane – so much water was used by fire engines that adjacent cable tramway woodblocks swelled, closing the vital cable slot. No cable trams could run over the affected tracks for some days until the company's men repaired the pavement to take the pressure off the slot.

When the Melbourne and Metropolitan Tramways Board (M&MTB) started its massive project to convert our tramways from cable to electric traction in the 1920s, it continued using woodblocks as its preferred paving material.

Construction and maintenance of woodblock pavements was labour-intensive, and hard, backbreaking work, not suited to mechanisation.

Furthermore, while woodblock pavements coped well with the demands of horse drawn traffic, from the 1920s onwards, motor vehicles increasingly damaged woodblock road surfaces, raising maintenance costs and reducing woodblock life. This trend was exacerbated by the growing weight and power of commercial trucks up to the Second World War, together with the tendency of motorists to drive on the well-maintained tramway tracks rather than the rougher sections of roadway that were the responsibility of cash-strapped local municipalities.

In its efforts to reduce costs, the M&MTB needed cheaper alternatives with less onerous maintenance requirements. The more cost-effective methods the



Woodblocked cable tram tracks uncovered during road works in Abbotsford Street, North Melbourne in 2007, 72 years after they last carried trams. Photograph by Russell Jones.

M&MTB used included laying bitumen over well-ballasted tracks and laying tracks in mass reinforced concrete. The latter approach came to be favoured for many years due to three key factors, namely:

- its strength and greater load-carrying capacity resisted damage from heavier, more powerful and ever-increasing motor vehicle traffic, especially trucks
- concrete track was constructed with a highly mechanised work force, reducing overall labour costs
- maintenance costs of concrete track were substantially lower than other track construction methods.

There were disadvantages to mass concrete track, as tram ride quality was harsher due to the increased rigidity of the track. It also increased the ambient noise of passing trams, due to sound reflections from the solid concrete surface. This latter complaint would lead to a major engineering effort by the M&MTB during the 1960s to reduce tramcar noise.

Construction of the Queensbridge Street line in 1944 was one of the last new tramways built in Melbourne using woodblocks as paving material, primarily due to the wartime shortage of the more modern road building materials. Postwar, the M&MTB would switch to using these more modern methods, although woodblocks would remain a feature of Melbourne tramways for decades to come. As far as we know, the last section of woodblocked tramway in our city was only removed in 2010, from a short section of Park Street, South Melbourne – although a section of original woodblocked cable tram track was briefly unearthed during 2007 in Abbotsford Street, North Melbourne. It was the subject of a heritage order preventing its removal and covered over with a new median strip.

-11-

The museum is lucky to have that small area of woodblocked pavement in our tram shed, preserving a vital part of our tramway history. However, this gave us a problem when water ingress into the shed recreated the problem of the 1897 Great Fire in miniature, putting a short section of 3 road out of gauge, and damaging some of the wood blocks.

Our maintenance team, led by Kevin Taig, had to come up with a cost-effective repair that kept the historic integrity of the woodblock paving, when the entire industry that supplied woodblocks to our cities had disappeared. Obtaining a special order of new replacement woodblocks to order was going to be cost prohibitive.

Instead, Kevin had the bright idea of recycling red gum posts from discarded backyard fencing, cutting them into blocks matching the original sizes – an environmentally sensitive way of achieving a good result.

One comment he had afterwards was that laying wood blocks was indeed backbreaking work.

Wallen Road South: a short history

The land where the Hawthorn Tram Depot is located was once described as "a thickly wooded bend in the riverbank, a notorious locality for cases of garrotting, murder, arson and burglary." An ideal escape route for the robbers responsible for the notorious 1901 hold-up of the Hawthorn horse tram.

The land at the corner of Wallen Road and Power Street was eventually purchased by the Hawthorn Council in connection with the acquisition of the horse tramway and the formation of the Hawthorn Tramways Trust in 1914.

The Hawthorn Tea Gardens

Adjoining the new depot, just south of the Wallen Road bridge, were the Hawthorn Tea Gardens, which had opened a few years earlier, on 17 October 1908.

River cruises along the Yarra and Maribyrnong rivers were popular attractions, with the Hawthorn Tea Gardens being just one of several destinations. There are references back to the 1880s to another tea garden in Hawthorn – this was a short distance away in Callantina Road.

At the Hawthorn Tea Gardens boats docked and ladies socialised over tea and scones, gazing over the scenic surroundings. Another feature was the menagerie, with monkeys and bird aviaries. A mini golf course was added in the 1920s.



Hawthorn Tea Gardens, with the Wallen Road bridge in the background, c1920. Photography courtesy of Boroondara Library Service.

The Hawthorn Tea Gardens were just one of several popular river-side destinations for day-trippers and tourists. Other hot spots included Studley Park, Dights Falls and Rudder Grange in Fairfield. Photograph courtesy of Walking Melbourne.



When the property was sold in the 1920s as a going concern, it was described as having a river frontage of 500 feet (152 metres) and a frontage on Wallen Road of 190 feet (58 metres). There were pavilions for dancing and refreshments, stables, nine boats, piano and, clearly a great asset, a 20-quart (23 litre) ice cream churn. A seven-room weatherboard villa was also on the site.

From the 1950s, patronage of the river cruises and the various pleasure garden destinations began to decline, as car and train travel increased accessibility of other leisure options. The Hawthorn Tea Gardens continued operating until the 1960s.

After the Hawthorn Tea Gardens burnt down in 1970, business partners Leon Jolson and David Walker bought the land and built the Leonda reception centre, the name being a fusion of the names Leon and David.

Hawthorn Tramays Trust history

As early as 1911, Hawthorn City Council and the Hawthorn Traders Association had wanted a tramway. Over in the neighbouring suburbs, the Prahran and Malvern Tramways Trust (PMTT) wanted to build a line along Glenferrie Road, but local Hawthorn residents preferred Burwood Road.

The Hawthorn Tramways Trust (HTT) was formed on 17 February 1914. The Trust comprised representatives of the cities of Melbourne, Richmond and Hawthorn and the town of Camberwell. During its brief lifetime, it constructed an electric tramway with lines from Princes Bridge to Camberwell and Burwood and along Power Street and Burwood Road, the latter replacing an existing horse tramway.

The HTT's car depot – now the location of the Melbourne Tram Museum – was built near the Yarra River at the corner of Power Street and Wallen Road, a location that minimised dead car-miles. Unlike other tram depots across Melbourne, the Hawthorn Tram Depot was built on a sloping site, requiring construction across different levels. The building was designed by Leonard Flannagan (1864-1945) in conjunction with McCarty Underwood & Co, consulting engineers of Queen Street Melbourne. F.A. McCarty was appointed

both consulting engineer and Manager of the HTT but was eventually dismissed in March 1918.

Plans were completed by January 1915 and amended in May. The foundation stone was laid by David Henry Dureau (1873-1943), ex-mayor of Hawthorn and chairman of the Trust, on 7 September 1915. Construction work was carried out by William C. Burne of Richmond and was completed on 30 December 1915.

A Permanent Way ('perway') yard was established on the banks of the Yarra below the Depot. The original depot building could hold 28 mixed cars on four roads.

Within months of opening the tramway, plans were made to purchase additional trams to cope with the increased patronage and to extend the depot to house them. A second three-track car shed ('Car Shed no 2') and basement workshop were added under the direction of architects Sydney Smith and Ogg, who also worked with F.A. McCarty. The contractor was W. Davies and the contract was signed on 3 February 1917 with work completed around September 1917.

The southern facade of this shed was constructed in galvanised iron to allow for further expansion, which did not eventuate.

West of the depot was an off-form concrete stable and shed which housed a horse-drawn tower wagon used to maintain the overhead wires.

The depot also included a civil engineering yard located to the west and below the depot fan, now occupied by the "Leonda" restaurant and car park.

The depot basement

Car Shed No 2 was the only Melbourne tram shed known to have a basement. This feature was directly related to the utilisation of the site on a steep hillside rather than any particular innovation. The basement appears to have become redundant by 1938 while the depot continued to operate.



Ballast car No 11 in the permanent way yard by the river bank behind Hawthorn Tram Depot. Originally 1906 NMETL toastrack tram no 15 (M&MTB V class no 216), similar to NMETL no 13 on display at Melbourne Tram Museum. It was converted to a ballast car in 1927 and was used to carry sleepers, ballast and other equipment for building and repairing tramways. Here it is towing a trailer loaded with wooden temporary road barriers. The tram was scrapped in 1948. Photograph from the Ray Pearson collection.

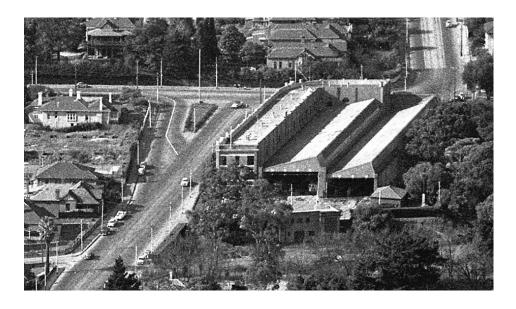
Track Cleaner No 7 in the upper yard at Hawthorn Tram Depot roughly where the entrance to the underground car park is now. The tram was built in 1929 by the M&MTB to clear dirt from tramway grooves. Based on the tram details, the picture dates from between 1934 and 1943. The much rebuilt tram was last used in 1978 and is now preserved at the Tramway Heritage Centre at Bylands. Photograph from the Ray Pearson collection.



An unusual feature of the depot was a workshop located under the second tram shed accessed via a track through the civil engineering yard. This track had a turntable and another track extended from the turntable eastward through the middle of the next two compartments.

The basement contained a store and workshop area. The ceiling was reinforced concrete supported by brick piers and internal brick load bearing walls. The north wall was brick constructed on an exposed Silurian rock foundation, the east and west walls were brick. The south wall was corrugated galvanised iron which originally contained extensive glazing and timber doors. It was equipped with rails and a turntable set into a bitumen floor. A timber staircase provided internal access to the shed above.

Beneath the escarpment and in front of the basement to Car Shed No 2 was a shooting range, believed to have been used by Victoria Police.



Wallen Road and Power Street intersection, c1950, showing the Hawthorn Tram Depot and its two tram sheds, as well as the stable and tower wagen shed. Photograph courtesy of the Hawthorn Historical Society.

Stable and tower wagon shed at Hawthorn Tram Depot, showing the off-form finish, 18 March 2022. Photograph by Alan Scott.



Stable and tower wagon shed

The two-storey building was built into the west side of the hill on which the marshalling yard was built. It was constructed from off-form reinforced concrete. The south end has a double-height door which provided access for the tower wagon. The upper storey or loft, which was at the level of the marshalling yard was used as the depot starter's office when the stable became redundant.

While the civil engineering yard is long gone, the former stable and shed for the horse-drawn tower wagon still remain in the Leonda car park.

Depot closure

The Hawthorn Depot perway yard was closed on 8 September 1938 as it was no longer required due to larger facilities being available at the Hanna Street Depot. The track leading to the basement was also removed.

Hawthorn ceased as an operating depot after the last tram on 13 February 1965, although it continued to operate as the M&MTB's driving school and clothing factory for some years after. The depot was added to the Victorian Heritage Register on 15 December 1994.

Alan Scott

Acknowledgements

Many thanks to Warren Doubleday, Robert Green, Brian Weedon and Mal Rowe for their assistance and the resources at State Library Victoria and Trove (National Library of Australia).

References

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From the museum's collection

This postcard from our collection shows cable trams in Elizabeth Street in the 1930s. Passengers wait on the platform while the bogie cable tram trailer is being rolled down to the end of the track before the dummy or grip car is connected to the trailer.

Hosie's Hotel was a long-standing institution on the Flinders Street corner. The Hobson's Bay Railway Terminus Hotel was first established on the site in the 1860s. In the 1880s it became known as Hosie's Hotel, after its then owner, James S. Hosie. The building was demolished in 1953 and replaced by a 13-storey hotel built to provide accommodation for the 1956 Olympics.

The building next to Hosie's was completed in 1933, dating the photograph to the period 1933-5, just before the 1935 conversion of Elizabeth Street from cable to electric trams.

The turreted Australian Building on the corner of Flinders Lane was one of the first skyscrapers in Australia. From its construction in 1889 until 1912 it was the tallest building in the country and remained the tallest in Melbourne until 1929. The Queen Anne style building was equipped with hydraulic lifts, powered by high-pressure water. Excavation for the lift shafts discovered some specks of gold in the creek bed below the building, but not in a quantity sufficient to pursue. The building was demolished in 1980.

Directly opposite Hosie's is Fink's Building, originally designed by noted architects Twentyman and Askew for the land speculator Benjamin Fink. When completed in 1888 it was one of the tallest buildings in Melbourne. It was gutted in the Great Fire of 1897 as were many of the buildings in the block between Flinders Street and Flinders Lane. After the fire it was rebuilt, with the original façade being partially retained.

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Acknowledgements

Heritage Victoria, National Library of Australia and University of Melbourne.



The Nicolson models

Richard ("Dick") Nicolson (1925-2008) was a civil engineer with a great love of mechanical transport.

He was born in Murrumbeena and spent his early years in Pakenham. The family then moved to East Coburg, living in Nicholson Street, where the East Coburg (route 1) tram passed by their front door. Dick attended Coburg High School from 1938 to 1941, being awarded his Leaving Certificate, aged 16.

It was the middle of World War II, and Dick was too young to join up. The school leaver was employed as an assistant warehouseman at Brooks, McGlashan & McHarg in Flinders Lane. However, his goal was to enlist with the Royal Australian Air Force – possibly keen to follow in the footsteps of his father, who had been seconded to the Australian Flying Corps late in World War I.

To increase his chances in qualifying for the RAAF Dick joined the Air Training Corps – initially with 102 Squadron, then with No 21 (City of Melbourne) Squadron. On his 18th birthday in December 1943 he enlisted as a Trainee Technical in the RAAF. His enlistment form notes another skill – he was also a drummer. Unfortunately Dick's medical tests revealed a colour vision deficiency, which meant he was unfit for active service as aircrew, although this did not rule out his service in ground support units.

An extensive collection of model trams is now on display at the Melbourne Tram Melbourne. The 20 models, spanning over 110 years of Melbourne tram history, are on loan from the Nicolson family.

Pictured above are three of the Nicolson models: M&MTB X 218, X2 675 and W2 609. Photograph by Noelle Jones.



Dick Nicolson at work in his shed, c2000. Photograph courtesy of the Nicolson family.

RAAF technicians received excellent training. Dick was no exception, becoming a skilled instrument maker, excelling in radio technology. This required high levels of precision, innovation and problem-solving in the rapidly evolving area of wartime communications. He was promoted to Leading Aircraftsman in July 1945.

On his discharge from the RAAF in 1946 Dick participated in the Commonwealth Reconstruction Training Scheme – a programme to provide educational and vocational training to ex-servicemen and women who had served in World War II. He was accepted to train as a civil engineer, studying part-time at the Melbourne Technical College (a forerunner of RMIT) from 1947 to 1949. An Associateship Diploma of Engineering (Civil Engineering) was conferred in 1953.

Meanwhile, Dick had joined the State Rivers and Water Supply Commission, where he remained for the rest of his working life. He had an illustrious 36-year career, which included 20 years working on the Mallee/Wimmera irrigation network. Then as Chief Engineer for the Coliban District (north central Victoria), he made significant improvements to the quality of Bendigo's water supply system. Returning to Melbourne as a Senior Engineer, Dick was actively involved in dam construction for numerous water supply reservoirs around the state.

On his retirement in 1986, Dick set about matching his love of trams with the skills gained as an instrument maker many years before. He began work on a model tramway at his home in Mentone, making his trams from scratch.

Each tram in the collection started with a Black Beetle motor and wheels. Everything other than the motor and wheels was fashioned by Dick: perspex windows, plywood bases and walls, wire handrails, back rests and skirts. He carved wooden flooring, seating and walls, with roofing either shaped tin or carved wood. Many parts – delicate screws, springs and wires – were sourced from old radios. All built with the precision, innovation and problem-solving skills gained through Dick's wartime training.

The completed model trams ran over an extensive tramway network, powered by overhead wires.

Dick was modest about his work and kept only a few trams on the network for the enjoyment of his growing family. It was only upon his death in January 2008 that the extent of his collection was fully revealed, with more than 15 trams stored carefully in and around his workshop.

The collection is on loan from the Nicolson family.

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Acknowledgements

Many thanks to the Nicolson family, RMIT Archives, National Archives of Australia and National Library of Australia.